

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009148**Date Inspected:** 23-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG CROSS BEAM CB1

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB2

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB3

This crossbeam has been loaded on the ship.

OBG CROSS BEAM CB4

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This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB5

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB7

During random in process visual inspection of the above mentioned cross beam, this QA observed that the contractor appears to have tack welded temporary drill templates to the SPCM bottom panel of this crossbeam without the Engineers approval. Furthermore, the tack welds do not appear to meet the additional requirements of AWS D1.5 2002 section 12. The length of the tack welds measure approximately 25mm. This condition exists in the following locations: 2 locations on FB205 @ PP013, 2 locations on FB204 @ PP013, 2 locations on FB205 @ PP014, 2 locations on FB204 @ PP014, 2 locations on FB205 @ PP015, 2 locations on FB204 @ PP015, 2 locations on FB205 @ PP016 and 2 locations on FB204 @ PP016. AWS D1.5 2002 section 12.13.1.1 states "All tack welds used in assembly shall be located within the joint unless otherwise approved by the Engineer." AWS D1.5 2002 section 12, table 12.2 requires tack welds located outside the joint to be a minimum of 75mm in length. See attached photos for details. This QA notified ZPMC QA identified as Mr. Zhang Wei and ABF QA inspector identified as Mr. Kelvin Cheung of this issue and that an incident report would be generated.

OBG CROSS BEAM CB8

This QA observed ZPMC qualified welding personnel identified as 220064 perform FCAW welding on weld joint identified as CB202G-008-002. ZPMC QC identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2231-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 048625 perform FCAW welding on weld joint identified as FB205-020-035. ZPMC QC identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2231-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 220066 perform FCAW welding on weld joint identified as CB202A-008-005. ZPMC QC identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

OBG CROSS BEAM CB9

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This QA observed ZPMC qualified welding personnel identified as 220688 perform FCAW welding on weld joint identified as FB204-023-058. ZPMC QC identified as Mr. Zhou Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 053609 perform FCAW welding on weld joint identified as FB205-024-036. ZPMC QC identified as Mr. Zhou Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

OBG CROSS BEAM CB10

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB11

This QA observed ZPMC qualified welding personnel identified as 217185 perform FCAW welding on weld joint identified as CB202A-011-002. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-B-U2-F.

This QA observed ZPMC qualified welding personnel identified as 205390 perform FCAW welding on weld joint identified as CB202A-011-014. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-B-U2-F.

OBG CROSS BEAM CB12

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB13

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB14

This QA observed ZPMC personnel flame straightening SPCM intermediate panel identified as FB202A following the guide lines of Heat Straightening Report (HSR) # HSR1(B)-6712. QC CWI identified as Mr. Chen Xi was present to monitor the process for compliance to the HSR. No other significant work was observed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB15

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This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

OBG CROSS BEAM CB16

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

As mentioned above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer
